UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
FERNANDES, CHERYL M

ART UNIT	PAPER NUMBER
2171	

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.		Applicant(s)	
Office Action Summary		10/028,823		HOSHINO ET AL.	
		Examiner		Art Unit	
		Cheryl M Fernandes		2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 December 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-10_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-10_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _28 December 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) ☐ Notice of Informal Patent Application (PTO-152)
Paper No(s)/Mail Date _5_.	6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 3 and 7 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an 'External Program Execution Environment' (see Fig. 1, element 101 and para. 23 of the instant specification), does not reasonably provide enablement for a program of "a third person" wherein resources are set as unavailable until a transaction is completed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims.

3.   Claims 5, 6, 8, and 9 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling in one aspect of the invention for a language that is different from Structure Query Language (SQL) query processing (see para. 10 and 11 of the instant specification), namely JAVA, does not reasonably provide enablement for what language the "different-type of language" mentioned differs from. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4.   Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5.   Referring to claim 1, the claim recites "a stored program" in the body of the claim. It is unclear whether or not this stored program is different from "a stored program" recited in the preamble of the claim. In the interest of compact prosecution, Examiner will assume that the 'stored program' in the body of the claim is the same as that of the preamble.

        Claim 4 depending from claim 1 therefore inherits the aforenoted deficiency, and is hereby rejected.

6.   Claims 5 and 9 are rejected for the following reasons:

-       the claims recite "a stored program" in the body of the claims. It is unclear whether or not this stored program is different from "a stored program" recited in the preamble in each of the claims. In the interest of compact prosecution, Examiner will assume that the 'stored program' in the body of the claims is the same as that of the preamble;

-       the claims recite "a stored program written in a different-type of language" in lines 3 of claim 5 and line 4 of claim 9. It is unclear as to what is meant by "different-type of language".

        Claim 8 depending from claim 5 therefore inherits the aforenoted deficiencies, and is hereby rejected.

7.   Claims 2, 6, and 10 are rejected for the following reasons:

- the claims recite "a stored program" in the body of the claims. It is unclear

    whether or not this stored program is different from "a stored program" recited

    in the preamble in each of the claims. In the interest of compact prosecution,

    Examiner will assume that the 'stored program' in the body of the claims is

    the same as that of the preamble;

- the claims recite "an interpreted language" in the body of the claims. It is

    unclear whether or not this interpreted language is different from "an

    interpreted language" recited in the preamble in each of the claims. In the

    interest of compact prosecution, Examiner will assume that the 'interpreted

    language' in the body of the claims is the same as that of the preamble; and

- the claims recite "a stored program written in an interpreted language

    (JAVA)". It is unclear as to whether or not the scope of the claim should be

    limited to stored JAVA programs.

8.   Claim 6 is also rejected for the following reason:

- the claim recites "a stored program written in a different-type of language" in

    line 4 of claim 6 . It is unclear as to what is meant by "different-type of

    language".

9.   Referring to claims 3 and 7, the claims recite the analyzing of "a query request

inputted thereto". However, it is unclear as to where the query request is inputted.

10.   A broad range or limitation together with a narrow range or limitation that falls

within the broad range or limitation (in the same claim) is considered indefinite, since

the resulting claim does not clearly set forth the metes and bounds of the patent

protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 3 and 7 recite the broad recitation "a stored program written in an interpreted language", and the claims also recite "a JAVA program" which is the narrower statement of the range/limitation. It is therefore unclear as to whether or not the stored program is a JAVA program or any interpreted language program that is stored.

In the interest of compact prosecution, with regard to the above-mentioned claims, Examiner will assume that interpreted language program used is a stored JAVA program.

11.   In addition to the above rejection, claims 3 and 7 are also rejected for the following reasons:

- Claims 3 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements

are: a first and second program. Examiner respectfully asserts that a claim

reciting a third program requires a first and second program;

- the claims recite "the program" in lines15, 18, and 20 and lines 15, 19, and 21

respectively. It is unclear as to whether 'the program' is the JAVA program or

the third program;

- the claims recite "a third person" in lines 20 and 21 respectively. It is unclear

as to what is meant by "a third person", especially since there is no previous

mention of first or second persons in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12.   Claims 1-10 are rejected under 35 U.S.C. 102(a) as being anticipated by US

Patent Number 6,225,995 B1 issued to Jacobs et al (hereafter Jacobs).

13.   Referring to claims 1, 2, 5, 6, 9, and 10, Jacobs discloses:

Database management methods, apparatus, and programs (col. 4, lines 20-22;

col. 31, lines 39-43) for addressing to a commit request (summary, lines 43-46; 'browser

request', col. 6, lines 33-36; col. 27, line 63-col. 28, line 6, Fig. 7E) or a rollback request

in a stored program (code is stored in storage device (Fig. 1, element 110), col. 6, lines

14-23; 'software modules' or 'cartridges', col. 6, lines 33-36, col. 7, lines 35-65;

'exemplary cartridges', col. 8, lines 15-33; col. 20, lines 16-30) written in an interpreted

language ('JAVA runtime interpreter', col. 8, lines 15-33), said method comprising the

steps of:

- reserving a resource ('shutdown() routine'[1], col. 7, line 49-col. 8, line 7) at

    execution of a query ('browser request', col. 6, lines 33-36, col. 9, lines 62-67)

    from the stored program (refer to mention of cartridge above) of the

    interpreted language (refer to mention of JAVA interpreter above) and

    keeping relational information between the reserved resource and resources

    already reserved in the query processing in execution having invoked the

    program ('metadata' stored (Fig. 2, element 258), col. 9, lines 24-43); and

- releasing, at release of a transaction from the stored program ('release of

    cartridge instances', col. 12, line 65- col. 13, line 20), associated ones of

    resources (col. 13, lines 37-47) according to the relational information kept in

    said reserving step (col. 13, lines 48-67; col. 10, lines 34-41)[2].

14.   Referring to claims 3 and 7, Jacobs discloses:

A database management method and apparatus (col. 4, lines 20-22; col. 31,

lines 39-43) for addressing to a commit request (summary, lines 43-46; 'browser

request', col. 6, lines 33-36; col. 27, line 63-col. 28, line 6, Fig. 7E) or a rollback request

in a stored program (code is stored in storage device (Fig. 1, element 110), col. 6, lines

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[1] The shutdown() routine is performed on a cartridge after it has been created and executed as seen in the table in col. 7. Examiner asserts that by invoking this routine, the cartridge becomes unavailable for subsequent requests, thereby reserving the cartridge.

[2] Idle time is part of the relational information stored in the metadata of Fig. 2 (also see example of idle time of 30 seconds in col. 10, lines 37-47). Hence after the completion of a transaction, when the

14-23; 'software modules' or 'cartridges', col. 6, lines 33-36, col. 7, lines 35-65;

'exemplary cartridges', col. 8, lines 15-33; col. 20, lines 16-30) written in an interpreted

language ('JAVA runtime interpreter', col. 8, lines 15-33), said method comprising the

steps of:

- analyzing a query request inputted thereto ('browser request', col. 6, lines 33-

  36; col. 7, lines 1-15) and generating an execution module (creation of 'new

  cartridge instance', col. 7, lines 16-28; col. 7, line 35- col. 8, line 33[3];

  'Resource Manager', col. 10, lines 25-59[4]);

- checking, when a JAVA program which is not contained in the execution

  module (col. 9,line 60-col. 10, line 10[5]) and which is beforehand stored in a

  database management system (DBMS) ('metadata', col. 9, lines 24-42[6];

  'DBMS', col. 31, lines 39-59) is invoked at execution of the execution module

  (refer to example of cartridge (C1) used in col. 10, lines25-45[7]), unknown

  resources to be used by the program (cartridge authentication, col. 9, line 60-

  col.10, line 24) and determining resources to be set as resources unavailable

  to a third program until a transaction is completed ('shutdown() routine', col. 7,

  line 49-col. 8, line 7; col. 11, line 50-col. 12, line 63; col. 30, line 58-col. 31,

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[3] Refer to the cartridge routines that are executed within the Cartridge modules.
[4] The Resource Manger manages the execution of the Cartridge modules (see lines 27-33).
[5] After receiving a browser request, which includes a URL, the dispatcher sends the URL from the request to a virtual path manager that determines the cartridge, if any, associated with the URL. This is done by mapping the URLs to cartridges in metadata (Fig. 2, element 258).
[6] Cartridge information is stored for later access as metadata.
[7] Examiner respectfully asserts that Cartridge C1 is invoked by the virtual path manager through the browser requests made. The Resource Manager then determines, after receiving receipt of requests from the dispatchers, whether any existing instance of C1 is available.

line 5 (Fig. 7I)) and resources to be set as unavailable resources until the

program is terminated ('shutdown() routine', col. 7, line 49-col. 8, line 7; col.

11, line 50-col. 12, line 63; col. 12, line 65- col. 13, line 20, col. 13, lines 48-

67); and

- releasing, in response to an input of a transaction completion request (col. 12,

line 65- col. 13, line 20; col. 30, line 58-col. 31, line 5 (Fig. 7I)[8]) or issuance of

a commit statement from the program, the resources set as unavailable

resources until the transaction is completed in the program of a third person

('release of cartridge instances' in response to completed browser requests,

col. 13, lines 37-67).

15.   Referring to claims 4 and 8, Jacobs discloses releasing the resources set as

unavailable resources until the program is terminated ('release of cartridge instances'

when finished responding to browser requests[9], col. 12, line 65- col. 13, line 20; col. 13,

lines 37-67).

Conclusion

16.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cheryl M Fernandes whose telephone number is (703)

305-3917. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Safet Metjahic can be reached on (703) 308-1436. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

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[8] At the notification of a completed transaction, control returns to intercepting another browser request.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

July 16, 2004
CMF

WAYNE AMSBURY
PRIMARY PATENT EXAMINER

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[9] Cartridge instances are released in response to completed browser requests until the instances are terminated.